

Mini Review

Graphene-Based Composites for Electrochemical Sensor Fabrication and Their Application for Drug Detection

Wei Jiang^{1*}, Lihua Huang², Danli Zhang¹, Yong Wang¹, Guangyong Pan¹

¹School of Intelligent Manufacturing, Zhejiang Guangsha Vocational and Technical University of Construction, Dongyang City, Zhejiang Province, 322100, P.R. China

²School of Management Engineering, Zhejiang Guangsha Vocational and Technical University of Construction, Dongyang City, Zhejiang Province, 322100, P.R. China

*E-mail: weijiang@sutcm.net

doi: 10.20964/2021.03.69

Received: 3 December 2020 / Accepted: 4 January 2021 / Published: 31 January 2021

Rapid detection of drugs is very important in clinical and food safety. Electrochemical detection technology is an analytical technology suitable for rapid detection in the field. However, the performance of commercial electrodes limits the application of electrochemical sensors. Graphene has excellent electrochemical performance, and its composite materials often show better performance. In this review, we summarize the electrochemical sensors fabricated from graphene composites for drug detection between 2010 and 2020. From the review, we found that graphene can greatly improve the performance of electrochemical sensors. The improvement of this performance greatly accelerates the practical application potential of electrochemical sensors in drug detection.

Keywords: Graphene; Electrochemistry; Drug detection; Sensor; Nanocomposite

[FULL TEXT](#)

© 2021 The Authors. Published by ESG (www.electrochemsci.org). This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).